

BOOK REVIEW

Butterflies of Australia. Their Identification, Biology and Distribution. By M.F. Braby. CSIRO Publishing; August 2000; 2 vols; xx + vii + 976 pp; 70 colour plates; hardback. Price \$195. ISBN 0 643 06591 1.

This long-awaited work is undoubtedly the most significant contribution to the literature on Australian butterflies since the 1981 second edition of Common and Waterhouse's *Butterflies of Australia*, with the number of species recognised from Australia (including Torres Strait islands) increasing from 382 in the former work to 410 in the present volumes (plus a further 4 from outlying islands).

The inclusion, in appendices, of the fauna of Christmas, Cocos (Keeling) and Norfolk Islands is welcome, but the downgrading of the fauna of Lord Howe Island and the northern and eastern Torres Strait islands to the same appendices is regrettable; these have long been accepted as an integral part of Australia. It is unusual to find a book on a country's fauna that defines its scope by zoogeographical, rather than political boundaries and a more appropriate title might be *Butterflies of the Australian Faunal Subregion*.

Introductory chapters provide an overview of biology, classification, collection and study. With the exception of the section on Conservation, these differ little from those in Common and Waterhouse and the contributions of that work to the present one remain significant.

The species listings provide the bulk of the text and include updated information on both nomenclature and biology, particularly life histories. In many cases, there are also useful notes on variation, taxonomic status, distribution and habits. Although impressive, these listings are not without problems. The requirement of the International Code of Zoological Nomenclature regarding agreement in gender between species and genus names has been disregarded. This means that the work cannot be used as a reliable guide to the correct spelling of names; for this Common and Waterhouse remains the authority. It is to be hoped that subsequent editions will rectify this breach of the Code. In the Papilionidae, the tribal name Lampropterini should be used in preference to Graphiini.

There is a greatly reduced emphasis on subspecies. Many have been synonymised, some justifiably but others perhaps a little too hastily and without proper consideration. Two species have been reduced in status on very doubtful grounds. *Jalmenus notocrucifer* has been tentatively placed as a subspecies of *J. inous* in a move which serves no useful purpose. *Elodina tongura* has been placed as a seasonal form of *E. walkeri*, despite differences in the aedeagus and its restriction to coastal and insular Northern Territory; a seasonal form would be expected to occur throughout the range of the species, including Queensland. Many pierid genera contain cryptic species

that are very difficult to tell apart. A better understanding may result from DNA, pheromone or ecological data but until then, and in the interests of stability, the prevailing treatments should have been maintained. The treatment of the *Ornithoptera* species, with the evidently sister-taxa *richmondia* and *euphorion* (a relationship supported by morphological and hybridisation data) placed as a species (*O. richmondia*) or a subspecies (*O. priamus euphorion*), defies both logic and phylogenetic reasoning.

Positive aspects of the book include the 64 excellent colour plates of set adult specimens. All but 2 species (*Pseudoborbo bevani* and *Appias celestina*, both likely vagrants) are illustrated thus. The 6 colour plates of early stages and adults in life are also welcome, although given the wealth of life history information available, perhaps more of these could have been included. Alternatively, there is scope for a companion volume on life histories.

There are very few typographical errors. The black and white illustrations provided for each species are a very useful addition to the text, particularly with the highlighting of diagnostic features. This is especially so in the case of the Hesperiidae and Lycaenidae, where many species are difficult to identify. The maps are more precise than in Common and Waterhouse, distributions more closely approximating actual records rather than broad extrapolations. In some cases this gives the impression that widespread species are absent from large tracts of country and some available records have been omitted (e.g. from western Cape York Peninsula).

There are useful appendices of larval food plants and attendant ants, species protected by legislation and a glossary. The appendix on species considered to be of conservation concern is less useful; it is too subjective and superficial for a book of this kind.

Many of the above criticisms appear to result from following the precedents set by the 1996 *Checklist of the Lepidoptera of Australia* by Nielsen, Edwards and Rangsi. These aside, this is a very worthwhile addition to the literature and the author should be congratulated for his perseverance and attention to detail. It is attractively presented and a delight to use. In its large, hardback form it is too cumbersome to be used as a field guide and a much abridged version may find a ready market. However, I have no doubt that this work deserves a place on the bookshelf of everyone interested in the Australian butterfly fauna. For those actively involved with the subject it is something of a necessity.

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